

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1.-5. (Canceled)
6. (Previously Presented) A neurological disease therapeutic agent comprising a therapeutically effective amount of a mesenchymal stem cell as an active ingredient,  
wherein the mesenchymal stem cell has been treated *ex vivo* with a transfection vector comprising a BDNF gene, PLGF gene, GDNF gene, or IL-2 gene, and  
wherein the mesenchymal stem cell is an immortalized mesenchymal stem cell that has been treated *ex vivo* with a transfection vector comprising an hTERT gene and a therapeutically acceptable carrier therefor.
7. (Canceled)
8. (Previously Presented) The agent of claim 6, wherein the mesenchymal stem cell is a bone marrow stem cell, a cord blood stem cell, or a peripheral blood stem cell.
9. (Previously Presented) A method for treating a neurological disease comprising administering to a patient in need thereof of a therapeutically effective amount of a neurological disease therapeutic agent comprising a mesenchymal stem cell as an active ingredient,  
wherein the mesenchymal stem cell has been treated *ex vivo* with a transfection vector comprising a BDNF gene, PLGF gene, GDNF gene or IL-2 gene, and  
wherein the mesenchymal stem cell is an immortalized mesenchymal stem cell which has been treated *ex vivo* with a transfection vector comprising an hTERT gene.
10. (Canceled)
11. (Previously Presented) The method of claim 9, wherein the neurological disease is cerebral infarction or severe cerebral infarction.
12. (Previously Presented) The method of claim 9, wherein the administration is intravenous administration.

13. (Previously Presented) The method of claim 9, wherein the mesenchymal stem cell is a bone marrow stem cell, a cord blood stem cell, or a peripheral blood stem cell.

14. (Previously Presented) The method of claim 13, wherein the bone marrow stem cell is an autologous cell of the patient.

15. (Previously Presented) The method of claim 11, wherein the severe cerebral infarction is in a hyper acute stage or an acute stage.

16. (Canceled)

17. (Previously Presented) The method of claim 11, wherein the neurological disease therapeutic agent is administered to a patient at any one of the times selected from:

- a) after 72 hours from the onset of a cerebral infarction or a severe cerebral infarction;
- b) after 24 hours from the onset of a cerebral infarction or a severe cerebral infarction;
- c) after 12 hours from the onset of a cerebral infarction or a severe cerebral infarction;
- d) after 6 hours from the onset of a cerebral infarction or a severe cerebral infarction; or
- e) after 3 hours from the onset of a cerebral infarction or a severe cerebral infarction.

18. (Previously Presented) A method for neuroprotection of a neurological disease patient comprising administering to the patient in need thereof of a therapeutically effective amount of an agent comprising a mesenchymal stem cell as an active ingredient,

wherein the mesenchymal stem cell has been treated *ex vivo* with a transfection vector comprising a BDNF gene, PLGF gene, GDNF gene or IL-2 gene, and

wherein the mesenchymal stem cell is an immortalized mesenchymal stem cell which has been treated *ex vivo* with a transfection vector comprising an hTERT gene.

19. (Previously Presented) A method for regenerating the cranial nerve of a neurological disease patient comprising administering to the patient in need thereof of a therapeutically effective amount of an agent comprising a mesenchymal stem cell as an active

ingredient,

wherein the mesenchymal stem cell has been treated *ex vivo* with a transfection vector comprising a BDNF gene, PLGF gene, GDNF gene or IL-2 gene, and

wherein the mesenchymal stem cell is an immortalized mesenchymal stem cell which has been treated *ex vivo* with a transfection vector comprising an hTERT gene.

20. (Withdrawn-Currently Amended) A method for treating brain tumor comprising *in vivo* administration to a patient of a therapeutically effective amount of **neurological disease therapeutic agent according to claim 1** ~~an agent comprising a mesenchymal cell as an active ingredient.~~

21. (Withdrawn) The method of claim 20, wherein the *in vivo* administration is direct administration.

22. (Withdrawn) The method of claim 9, wherein the mesenchymal cell is obtained by the steps of:

- (a) obtaining bone marrow cells from the patient;
  - (b) diluting the bone marrow cells;
  - (c) centrifuging the bone marrow cells, thereby separating a mononuclear cell fraction;
  - (d) collecting said mononuclear cell fraction;
  - (e) suspending said mononuclear cell fraction in a serum-free medium to form a suspension;
  - (f) centrifuging said suspension to yield a centrifuged mononuclear cell fraction;
- and
- (g) suspending the mononuclear cell fraction obtained in (f) in a serum-free medium.

23. (Previously Presented) A method for delivering therapeutic genes to a neurological disease site of a patient with neurological disease, comprising administering a therapeutically effective amount of a mesenchymal stem cell to a patient in need thereof, wherein the mesenchymal stem cell is an immortalized mesenchymal stem cell which has been treated *ex vivo* with a transfection vector comprising an hTERT gene.

24. (Previously Presented) The method of claim 23, wherein the neurological disease is cerebral infarction.

25. (Withdrawn) The method of claim 23, wherein the neurological disease is a brain tumor.

26. (Previously Presented) The method of claim 24, wherein the administration is intravenous administration.

27. (Previously Presented) The method of claim 25, wherein the administration is direct administration.

28. (Withdrawn) The method of claim 13, wherein the bone marrow cell, cord blood cell, or peripheral blood cell is a cell fraction which is isolated from bone marrow cells, cord blood cells, or peripheral blood and containing mesoblastic stem cells comprising the markers SH2(+), SH3(+), SH4(+), CD29(+), CD44(+), CD14(-), CD34(-), and CD45(-).

29. (Withdrawn) The method of claim 9, wherein the neurological disease is a brain tumor.

30. (Withdrawn) The method of claim 29, wherein the administration is direct administration.